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*Infections (including COVID-19)*

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#### Characteristics And Outcomes Of Dengue Infection In Patients With Immune-Mediated Diseases: Combined Data From Five Latin American Countries

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**Background/Objectives:** Dengue infection in patients with immune-mediated rheumatic diseases (IMRD) in Latin America poses a significant challenge due to the interaction between chronic inflammation and the altered immune response in these individuals. Currently, there is limited evidence regarding the characteristics and progression of this infection in this specific population. The aim of this study was to establish the characteristics and outcomes of dengue infection in patients with IMRD.

**Methods:** Data were collected from the BIOBADA registries, including Argentina, Brazil, Mexico, Paraguay, and Uruguay. For this analysis, patients with IMRD who reported at least one dengue event were included. Severe events were defined as those that resulted in death, life-threatening situations, required hospitalization or extended it, caused persistent or significant disability, or congenital malformations. Descriptive statistics were performed.

**Results:** Seventy-five cases of dengue in 69 IMRD patients from the BIOBADA registries were collected, all occurring before the vaccine was available. The patients were predominantly female (73.9%) with a median age at infection of 47.0 years (Q1, Q3: 41.0, 58.0). Of these patients, 76.8% had rheumatoid arthritis, 16.9% axial spondyloarthritis, and 7.3% psoriatic arthritis, with a median disease duration of 10.0 years (Q1, Q3: 6.0, 19.0). At the time of dengue diagnosis, 2 patients were on conventional drugs only, while 77.3% were on TNF inhibitors, 12.0% on tocilizumab, 4% on abatacept, 2.7% on rituximab, and 1.3% on tofacitinib. 66.2% were using methotrexate and nearly half (53.7%) were on corticosteroids, with a median prednisone dose of 10.0 mg/day (Q1, Q3: 6.0, 10.0).



The most frequently reported symptoms were fever, arthralgia, and gastrointestinal manifestations. Out of the 76 events, 7 (9.3%) were considered severe. One hemorrhagic dengue case was reported and none were fatal. Two (2.7%) patients recovered with sequelae. Of the 6 patients who reported two events, only one experienced a second severe event.

**Conclusion:** In this international registry, most reported dengue cases were mild, and none resulted in patient death. Given the high regional circulation of this virus, further study is needed to assess dengue in patients with IMRD and to establish appropriate management in such cases.

**Disclosure of Interest:** None Declared

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